



From the Manufacturing Floor to the Corner Office: How to Communicate with Management and Plant Personnel

Wednesday, May 17

11:15 am-12:30 pm

Panelists

- Kevin Kohl, Legrand
- David Reid, Celanese International Corporation
- Ryan Spies, Saint-Gobain Corporation
- Bruce Lung, U.S. Department of Energy (Moderator)

Kevin Kohl

Legrand

2017 Better Buildings Summit

Driving Success

How to Communicate with Industrial
Management and Plant Personnel

Kevin Kohl

Corporate Energy Manager

Legrand North America

SUSTAINABILITY



Agenda

1. Project Overview
2. Results
3. Implementation Challenges
4. Other Benefits
5. Key Takeaways

Deploying a Variety of Strategies for Addressing Energy Management

Engaging our People



Evolving Our Processes



Deploying the Right Technologies



Empowering and Recognizing Our People

Visible Leadership Commitment

Dedicated Corporate Energy Manager and Designated Site Liaisons for Energy

Employee Engagement Initiatives

- Recognizing and Reporting Success
- Energy Education
- Legrand Employee Product Purchase Program

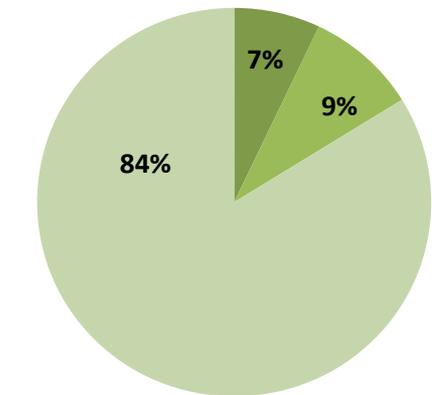


Managing a Diverse Energy Profile

Legrand, North America Energy Profile (2016)

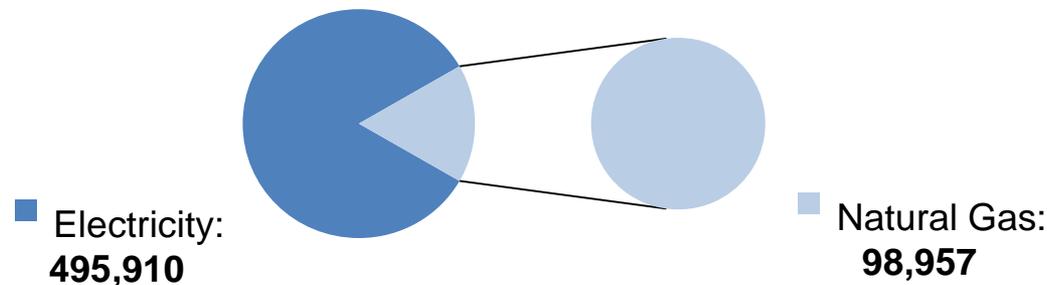
Facility Type	Number	Energy Usage (MMBtu)
Office	9	41,960
Distribution	6	54,199
Manufacturing	7	497,708
Totals	22	593,868

Energy Use (MMBtu) by Facility Type



■ Office ■ Distribution
■ Manufacturing

2016 MMBtus



Project Overview

GOAL: Reduce energy intensity by **25%** in 10 years

Energy Reduction Opportunities Identified via:

1. Desk assessments
2. IAC audits
3. Submetering
4. Events



Reduced Energy Intensity

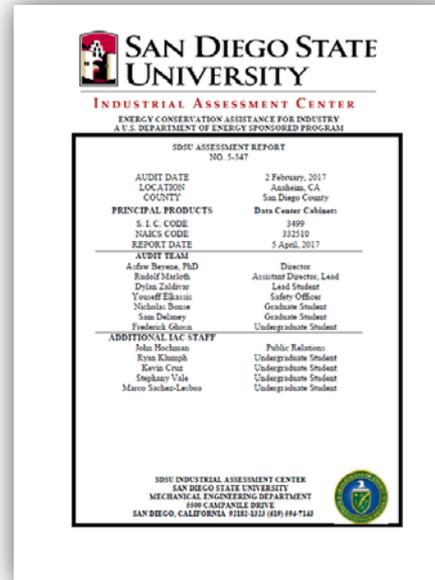
38% - Between 2009 and 2013, we reduced our energy intensity by 38% across 14 U.S. sites, well exceeding the Better Buildings, Better Plants Challenge goal of 25% in 10 years. Our 2022 goal: a 25% reduction over our 2012 measurements.

Project Overview

GOAL: Reduce energy intensity by **25%** in 10 years

Energy Reduction Opportunities Identified via:

- ➔ 1. Desk assessments
- ➔ 2. IAC audits
- 3. Submetering
- 4. Events



SUMMARY OF ENERGY AND COST SAVINGS 6

2.0 ASSESSMENT RECOMMENDATIONS (ARS) 7

AR 01: INSTALL HIGHER EFFICIENCY LIGHTING 8

AR 02: INSTALL SKYLIGHTS & PHOTOCELL CONTROLS 13

AR 03: REPAIR COMPRESSED AIR LEAKS 17

AR 04: INSTALL OCCUPANCY SENSORS 21

AR 05: RECONFIGURE DRYING OVENS 25

AR 06: USE BLOWERS INSTEAD OF COMPRESSED AIR 29

AR 07: INSTALL PREMIUM EFFICIENCY MOTORS 33

3.0 ADDITIONAL MEASURES TO REDUCE ENERGY USE 37

4.0 BEST PRACTICES 39

5.0 IMPLEMENTATION STRATEGY 40

Project Overview

GOAL: Reduce energy intensity by **25%** in 10 years

Energy Reduction Opportunities Identified via:

1. Desk assessments
2. IAC audits
3. **Submetering**
4. Events



Project Overview

GOAL: Reduce energy intensity by **25%** in 10 years

Energy Reduction Opportunities Identified via:

1. Desk assessments
2. IAC audits
3. Submetering
4. **Events**



In-Plant Training: Energy Treasure Hunt



Results



Since 2016:

- ✓ 5 IACAudits completed
- ✓ 5 Desk Assessments completed
- ✓ >\$300k in Opportunities identified

Implementation Challenges

1. Strategic Alignment

1. Across divisions, product lines, and sites
2. New acquisitions

2. Organizational Support

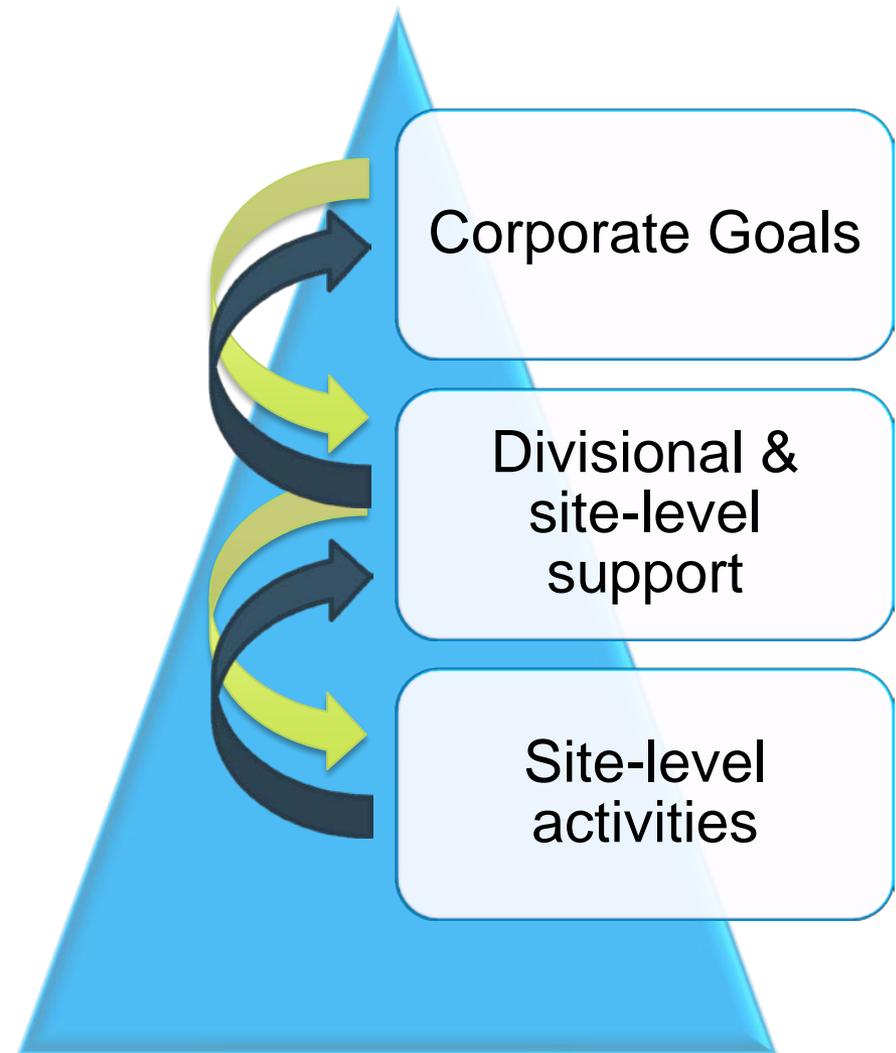
1. Executive leadership
2. Resource planning
3. Goal tracking

3. Stakeholder Buy-in

1. Site leadership
2. Behavioral buy-in

4. Tactical Execution

1. Resource allocation
2. Submeter calibration
3. Technical knowledge



Overcoming Challenges through Communication

Tips:

- ✓ Keep it simple!
- ✓ Encourage active participation
- ✓ Engage at all levels
- ✓ Explain the WHY
- ✓ Know your audience



Electricity Usage in kWh from Utility Meter		Utility Multiplier	Baseline				Energy Marathon Start:				
Facility Location(s)	Site Leader		kWh Rate Calculated From Electricity \$/kWh	Baseline Start @ 12 noon	Baseline Finish Day 12.1 @ 1 pm	Average Daily Usage	Day 1 @ 12 noon	Day 2 @ 12 noon	Cumulative Difference	Baseline % Change	\$ Savings
1			\$ Per kWh	kWh	kWh	kWh	kWh	kWh	kWh	\$	\$
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											

Other Benefits

Employee Engagement

1. *Volunteer based Sustainability team!*
2. Creative ideas for further improvements
3. Spirited competitions

Maintenance

1. Submeters identify potentially dangerous spikes to equipment
2. Regular tracking identifies needs more quickly

Week 3 Contest Winner



Pat Kittredge from West H...
lucky winner of a NEST last

Wear your football jersey th...
submit an energy efficiency...
site and enter to win the **GR**

- Nest Programmable Thermostat
- WattStopper Isolè IDP-3050
- LED Prize Pack
- Pass & Seymour Occupancy Se

Tweet! #legrandenergym



Key Takeaways

1. Establish a repeatable model for assessments
2. Stakeholder buy-in is critical to implementing change
3. Communication is paramount to success



David Reid

Celanese International Corporation



From the Manufacturing Floor to the Corner Office:
How to Communicate with Management and Plant Personnel

Energy Systems Effectiveness Matrix

David Reid
Global Energy and Productivity Leader
Celanese

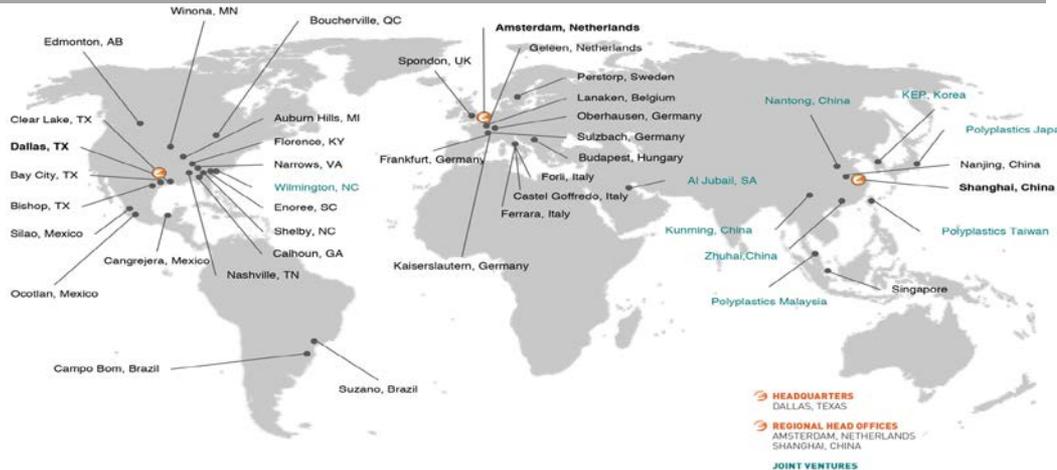


CELANESE IS A GLOBAL TECHNOLOGY AND SPECIALTY MATERIALS COMPANY



Celanese operates 38 manufacturing locations.

In 2016 net sales were \$5.4 billion.



Based in Dallas, Celanese employs approximately 7,300 employees worldwide

Materials Solutions
 \$2.373 BILLION
 NET SALES

Leverages **chemistry, material science,** and applications based on **customer relationships** and insight to create **unique solutions** and value

- ▶ **Specialty thermoplastics** used in automotive, electronics, medical devices, and aesthetic applications
- ▶ **Cellulose derivatives** like acetate tow for filters and diacetate films
- ▶ **Food ingredients** including sweeteners and preservatives



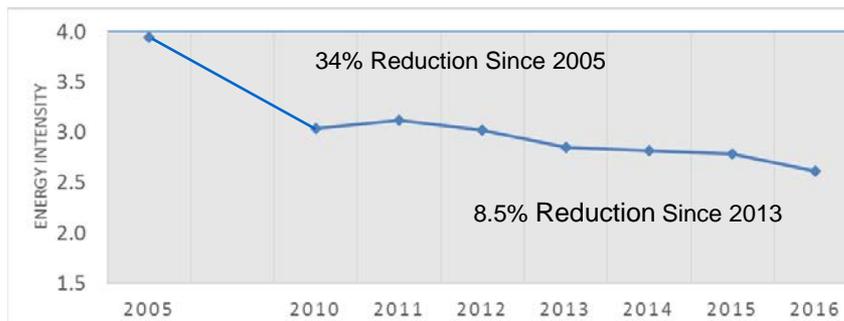
Acetyl Chain
 \$3.132 BILLION
 NET SALES

Leverages **technology, our global production network,** and a deep understanding of **global trade flows** to create value

- ▶ **Acetic acid, vinyl acetate monomer,** and additional intermediate chemistries
- ▶ **Emulsion polymers** for paint, adhesives, waterproofing
- ▶ **EVA polymers** for flexible packaging, medical solutions



Energy Performance



Industry Direction

Past

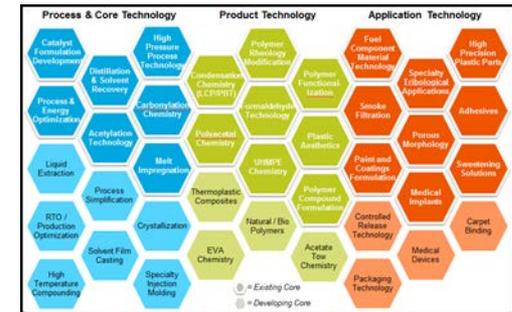
More Personnel
Energy Spend
Retained Experience
Effective Progression

Less Personnel
Budget Constraints
Diminishing Experience
Higher Turnover

Future

► Energy is not the number one priority of a manufacturing site

- EHS
- Production
- Cost
- Quality
- Stable Operations
- ⋮
- Energy



- Sites know the importance of energy efficiency, but ...lower priority

► I'm from corporate and I'm here to help

Resource Limitations and Other Priorities Lead to Tension

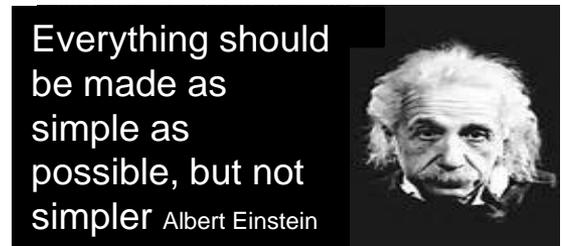
Seven Energy Management Principles



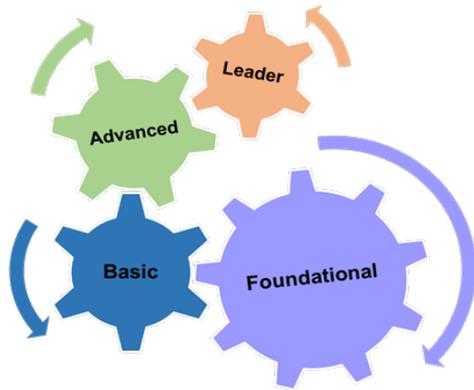
- 1. Leadership Commitment for Energy (Alignment)**
- 2. Energy Roles and Responsibilities (Organization)**
- 3. Set Energy Goals, Evaluate Progress and Forward Look (Work Process)**
- 4. Assess Energy Performance - Metrics, Measurement and Analysis (Data)**
- 5. Energy Programs, Tools and Best Practices (Systems)**
- 6. Energy Engagement and Culture (People)**
- 7. Energy Partnerships (Outreach)**

Some Sites Are Not Ready Or Don't Need To Do It All

- ▶ Self evaluation
 - Give them ownership
 - Facilitator coaching
 - Help them to be realistic and honest with themselves
- ▶ Don't expect be proficient at all categories
 - Tailor to site
 - Maturity, Resources, Culture
 - Baseload requirements
- ▶ Give them a rubric / tool to evaluate their system
 - Simple – Makes sense
 - Describes what good looks like
 - Hierarchy
- ▶ Small site team with cross functional energy knowledge
 - Not a major site resource drain
 - Enough knowledge for adequate evaluation



Energy Systems Hierarchy

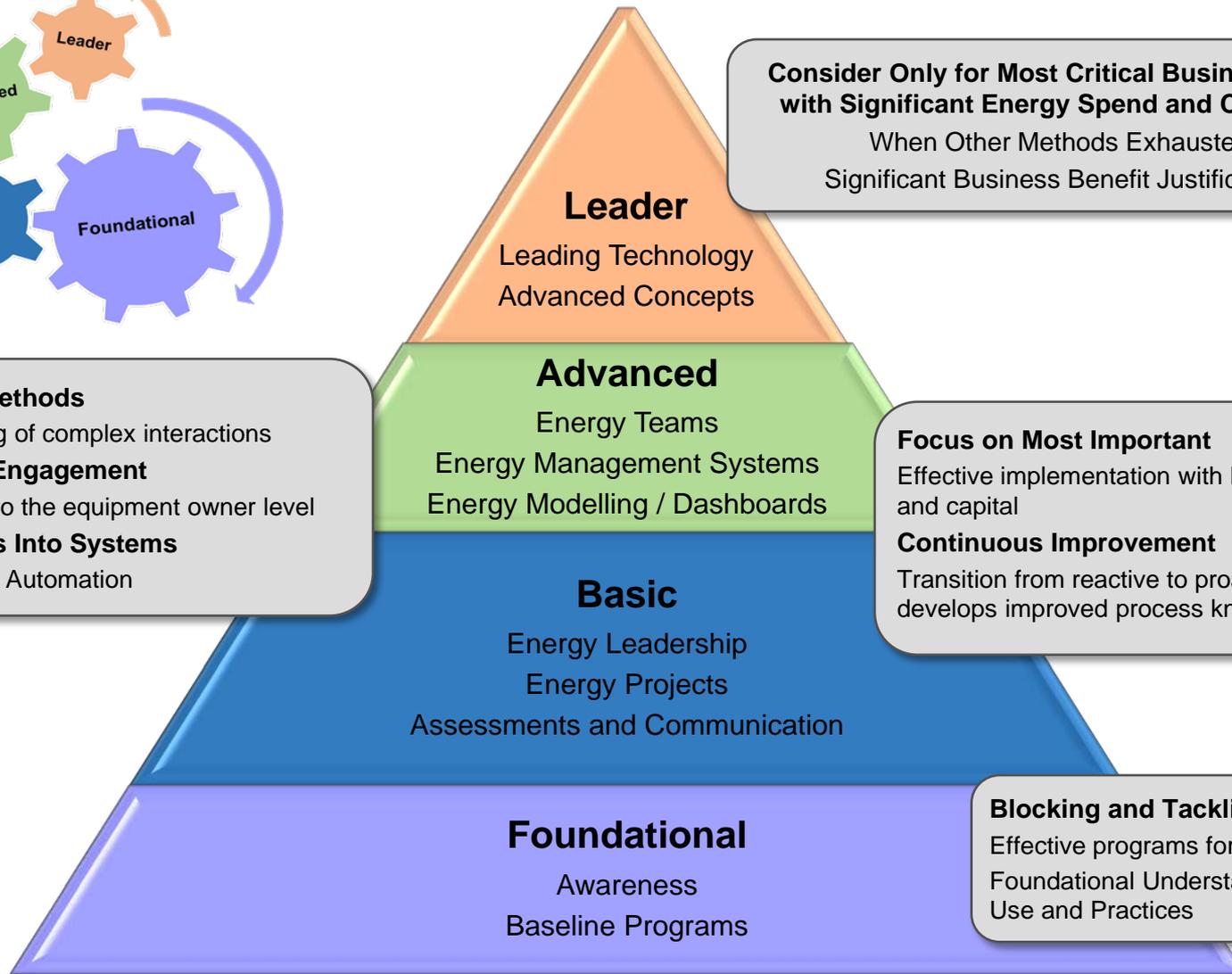


Consider Only for Most Critical Business Units with Significant Energy Spend and Criticality
When Other Methods Exhausted
Significant Business Benefit Justification

Advanced Methods
Understanding of complex interactions
Operations Engagement
Drive energy to the equipment owner level
Build Models Into Systems
Sustainability, Automation

Focus on Most Important
Effective implementation with limited resources and capital
Continuous Improvement
Transition from reactive to proactive and develops improved process knowledge

Blocking and Tackling
Effective programs for basic activities
Foundational Understanding of Energy Use and Practices



Strategy Aligned with Operating Context

Energy Management Matrix



Foundational	Leadership Support and Energy Strategy	Baseline and Ongoing Usage Measurement	Energy Awareness	Energy Bill Review and Analysis	Building / Lights NIU Program	Insulation Program	Steam Leak Program	Steam Trap Program	Instrument Calibration Program	Plant air and Compressed air Program	Energy Infrastructure Preventative Maintenance Program
Basic	Site Energy Leader	Site Energy Mapping and Balance	Energy KPI's and Scorecard	Energy Project Log	Energy Assessments and Treasure Hunts	Energy Checklist for Projects	Communication	Process Equipment NIU Program	Cooling Tower Controls	Thermal Imaging Review	Energy Efficiency Analysis
Advanced	Site Energy Team	Energy Management System	Boiler / Fired Unit Combustion Control	Entitlement and Benchmarking Analysis	Pinch and Heat Integration Analysis	Energy Modeling and Energy Curves	Long Term Energy Objective Aligns with Multi-year Project Pipeline	Sub-metering	Energy Dashboards	Energy Procurement Alignment	
Leader	Design for Energy Efficiency	Energy Partnership	Energy Leading Indicators	Emerging Technology	Energy Culture	Renewable Energy	Advanced Process Control for Energy	Emerging Issues eg. Regulatory, Social, Generational	Energy Personnel Succession planning		

Self Assessment	% Desired Condition
No Practice or System In Place	0-10%
System Exists without practice or practice is weak	10-30%
Practice /System partially in place and intermittently effective	30-75%
Practice and System usually effective	75-90%
System and Practice Effective	90-100%

Foundational



Leadership support and energy strategy	The energy program has leadership support and is part of the overall company and site strategy and objectives. Energy strategy is integrated into the business plan (BTP/UTP). Energy program priority is evaluated and aligned with business and site priorities
Steam Trap Program	Site has an established steam trap program to review steam trap failures, and repairs. A time or service based interval is established for inspection and repair of critical traps. All site traps are evaluated on some frequency. The inspection program is part of an established CMMS system for sustainability.

Basic

Communication	Effective and Frequent Internal and External Communications are done to ensure site wide understanding and engagement in energy targets, projects and results including successes is in place. Must be frequent and repeated to ingrain in culture (like ads) Internal – Intranet, Blogs, Newsletters, Posters, Email, Video External – Publications, conferences, news releases, Facebook, Twitter, LinkedIn
Energy KPI's and scorecard	A compelling scorecard with key process indicators is developed and monitored. Leading indicators are used. Regular cadence of review and accountability for gaps to performance is occurring. Specific short and long term energy goals are in place.

Advanced

Energy Management System	A clear set of Energy management system components to measure the health of the Energy program is in place and reviewed periodically, Gap analysis is done and continuous Improvement program in place. Aligns with ENERGY STAR, DOE, ISO50001 and other energy partnership best practices
Energy Modeling and Energy Curves	Units use multiple regression to define unit and component level energy models and volume based energy curves. An energy regression correlating key input variables - production rate, heating/cooling days - to energy is developed and used. Energy metrics are normalized to critical Y's

Leader

Design for Energy Efficiency	New processes and products are reviewed in the design phase for energy optimization. A clear payback criteria is in place to justify design changes to improve energy efficiency of new equipment. Energy optimization is done up front in the design. Life cycle cost evaluation of energy equipment in design phase. Equipment selection standards are in place for energy optimization for equipment replacement and design.
APC for Energy	Advanced control techniques are in place to optimize energy use at the site on a comprehensive systems perspective (i.e. Boiler system management, area energy balance optimization)

Energy Management Matrix



Foundational	Leadership Support and Energy Strategy	Baseline and Ongoing Usage Measurement	Energy Awareness	Energy Bill Review and Analysis	Building / Lights NIU Program	Insulation Program	Steam Leak Program	Steam Trap Program	Instrument Calibration Program	Plant air and Compressed air program	Energy Infrastructure Preventative Maintenance Program
Basic	Site Energy Leader	Site Energy Mapping and Balance	Energy KPI's and Scorecard	Energy Project Log	Energy Assessments and Treasure Hunts	Energy Checklist for Projects	Communication	Process Equipment NIU Program	Cooling Tower Controls	Thermal Imaging Review	Energy Efficiency Analysis
Advanced	Site Energy Team	Energy Management System	Boiler / Fired Unit Combustion Control	Entitlement and Benchmarking Analysis	Pinch and Heat Integration Analysis	Energy Modeling and Energy Curves	Long Term Energy Objective Aligns With Multi-year Project Pipeline	Sub-metering	Energy Dashboards	Energy Procurement Alignment	
Leader	Design for Energy Efficiency	Energy Partnership	Energy Leading Indicators	Emerging Technology	Energy Culture	Renewable Energy	Advanced Process Control for Energy	Emerging Issues eg. Regulatory, Social, Generational	Energy Personnel Succession planning		

Self Assessment	% Desired Condition
No Practice or System In Place	0-10%
System Exists without practice or practice is weak	10-30%
Practice /System partially in place and intermittently effective	30-75%
Practice and System usually effective	75-90%
System and Practice Effective	90-100%

1. Evaluate each item based on qualitative or quantitative measure of the effectiveness of the element – Be realistic and honest
2. Based on the business and site energy strategy and priority define which elements require improvement
3. Define short and long term actions to close the gap identified
4. Execute improvement plan
5. Re-evaluate periodically

Long Term Action Plan

- ▶ Aligned with long term energy objectives
 - Cost, Energy Intensity, Stewardship (GHG)
- ▶ Aligned with long term business plan
 - Business technology, Unit technology, Capital plan
- ▶ Strategic and tactical actions based on energy matrix results
 - Develop 2-5 year plan for improvement

Fundamental	Energy Bill Review and Analysis	Develop energy bill tracking and analysis tool										
		Define opportunities for reduction of energy billing factors										
	Building Lights NIU	Install automatic light shutoff and motion detectors										
		Communication program to turn equipment off when not using										
Basic	Energy Checklist for Projects	Implement energy design checklist in capital project work process										
	Energy KPI's and Scorecard	Develop basic lagging metrics for energy reduction										
Advanced	Pinch and Heat Integration Analysis	Conduct pinch analysis and heat integration on top 5 units										
	Energy Dashboards	Implement energy model and dashboards in three sites per year										
	Entitlement and Benchmarking Analysis	Evaluate top 10 distillation towers for energy efficiency										
Leader	Advanced Process Control for Energy	Implement APC in VAM waste recycle gas compressor										

- ▶ A Comprehensive Energy Management Systems is complex and can be difficult
- ▶ Sites are afraid / negative attitude / defensive to evaluation especially by an outsider - DON'T WANT TO and CANT do it all.
- ▶ Put them at ease by giving them a simple tool to self-evaluate
- ▶ Hierarchy of components based on maturity and need.
 - Build the Foundation before taking on the Leader programs
- ▶ Facilitate the process by asking questions that cause self reflection leading to honest evaluation of their programs
- ▶ Sites own the evaluation and the results
- ▶ Sites focus on gaps that mean something to improving energy at their site
- ▶ Sites design a custom plan to continuously improve their energy program based on the gaps, resources, site priorities and objectives
- ▶ Build trust and keep it simple

Meaningful Evaluation → Continuous Improvement

Disclaimer

This publication was printed in May 2017 based on Celanese's present state of knowledge, and Celanese undertakes no obligation to update it. Because conditions of product use are outside Celanese's control, Celanese makes no warranties, express or implied, and assumes no liability in connection with any use of this information. Nothing herein is intended as a license to operate under or a recommendation to infringe any patents.

Copyright © 2017 Celanese or its affiliates.
All rights reserved.

Ryan Spies

Saint-Gobain Corporation



Awarding Achievement & Speaking the Language

May 2017

**DOE Better Building Summit Session:
From the Manufacturing Floor to the Corner
Office: How to Communicate with Management
and Plant Personnel**

Who We Are



1665 - 2017



170 000
EMPLOYEES



8 RESEARCH
CENTERS



3 ACTIVITIES
HUBS



- Innovative materials
- Construction products
- Building distribution

What We Make – North America

INNOVATIVE MATERIALS

HABITAT

Gypsum Wallboard



Vinyl & Polypropylene Siding



Ceramic
Materials



Abrasives



Technical
Fabrics



Performance Plastics



Asphalt Roofing
Shingles



Acoustic &
Decorative
Ceiling Tiles



Fiberglass
Insulation



Electrochromic Glass

Ryan Spies – Saint-Gobain

Sustainability and Energy Manager

Background

- **Mechanical Engineer – Lehigh University**
- **MBA – Washington University in St. Louis**
- **6 Years in Engineering/Strategy Roles**
- **6 Years in Corporate Sustainability for 3 Fortune 500 Companies**
- **President – Net Impact Philadelphia Professional Chapter**



2025 Global Goals



- Energy consumption: -15%
- Total CO₂ emissions: -20%



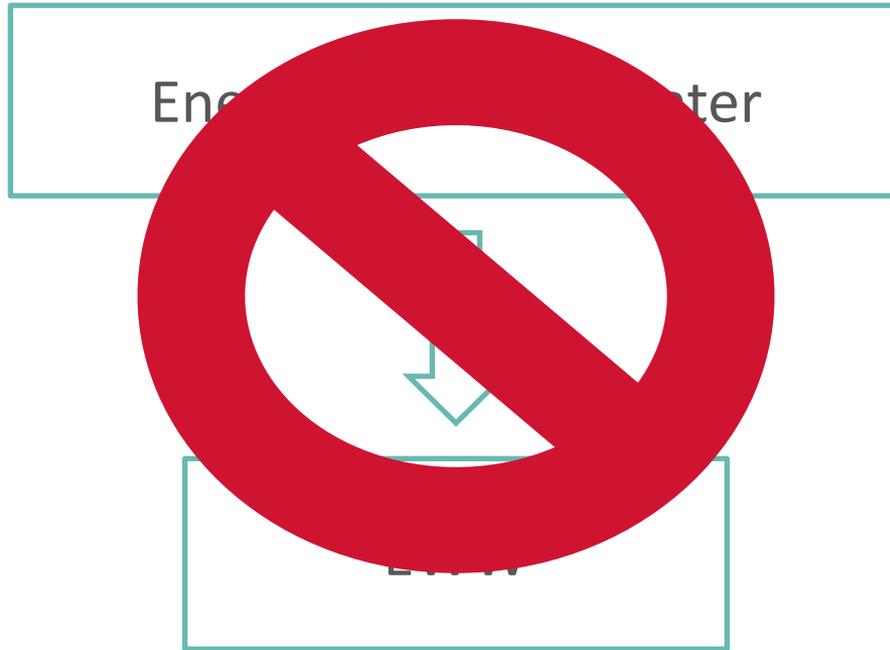
- Water discharge: -80%
- Long-term: Zero industrial water discharge in liquid form



- Non-recovered waste: -50%
- Long-term: Zero non-recovered waste



03/30/17



Water – Waste - Energy



WWE



The Goal of the Awards is to encourage sustained achievement in North America.

The objective is simple: creatively inspire competition among sites to reduce their environmental impact (waste, water, energy & CO2) and to sustain those reductions and attitudes.

The Logistics

ALL MFG SITES DATA USED FOR LAST 3 YEARS

- Change in intensity from 2013-2014
- Change in intensity from 2014-2015
- Must be positive change for both time periods

RANKING OF TOP 5 FOR PERIOD 2014-2015

- For Water/Waste/Energy Intensity
- For CO2 – combined intensity and total reduction

TOP 5 IN EACH CATEGORY ASKED TO SUPPLY 1 PAGE DESCRIPTION OF PROGRAM

- 5 Basic points judges were evaluating

JUDGES INCLUDED VPS FROM:

- Purchasing
- Finance
- EHS
- Top Management



Robust Data Analysis Leads to Finalists... but not winners Alone

Finalists from Across Sectors

TOP RANKING - WASTE (Intensity)		(Calculated total energy consumption - GAIA) / (Gross production - GAIA)			Intensity Improvement				
City	Waste Intensity (2013)	Waste Intensity (2014)	Waste Intensity (2015)	13-14	14-15	Plant Manager	Site EHS	Site WVEC Champion	
Site 1	0.9315	0.6471	0.0366	30.5%	94.3%	Lisa Lufkin	Ron Williams	Thomas Dassatti	
Site 2	0.0545	0.0279	0.0038	48.7%	86.3%	Robert Post	Paul Lane	Frank Jackson; Kishan Kulkarni	
Site 3	0.0283	0.0278	0.0110	1.6%	60.5%	Tom Oliver	Gina Pero	Richard Schau	
Site 4	0.0321	0.0212	0.0102	34.0%	52.0%	Robert Fernandez	Richard Hanley	David P. Graham; Rick Nelson	
Site 5	0.1627	0.0964	0.0516	40.7%	46.5%	Andreas MEYERHOFE	Clay Shelly	Martin Schiereck	
TOP RANKING - WATER (Intensity)		(Calculated total water consumption - GAIA) / (Gross production - GAIA)			Intensity Improvement				
Site	Water Intensity (2013)	Water Intensity (2014)	Water Intensity (2015)	13-14	14-15	Plant Manager	Site EHS	Site WVEC Champion	
Site 1	9.4848	8.0082	1.8649	15.6%	76.7%	Nicole Zea	Chris Chabot	Joseph Dufresne	
Site 2	11.5457	10.5705	3.0142	8.4%	71.5%	Lance Delaney	Anna Radich	Tom Houghton; Anna Radich	
Site 3	0.0636	0.0331	0.0122	48.0%	63.1%	Robert Fernandez	Richard Hanley	David P. Graham; Rick Nelson	
Site 4	1413.9927	409.9115	151.4165	71.0%	63.1%	Tim Vitorino	Doug Wright	Ross Karipidis	
Site 5	1919.6745	1245.0250	876.3480	35.1%	29.6%	Mike Simpson	Jeff Chopple	Ed Rosenberger	
TOP RANKING - ENERGY (Intensity)		(Calculated total energy consumption - GAIA) / (Gross production - GAIA)			Intensity Improvement				
Site	Energy Intensity (2013)	Energy Intensity (2014)	Energy Intensity (2015)	13-14	14-15	Plant Manager	Site EHS	Site WVEC Champion	
Site 1	9.2391	3.2246	1.4622	65.1%	54.7%	Alan Mdenaghan	Jim Richardson	Jim Richardson; Al Anderson	
Site 2	0.3560	0.3515	0.2415	1.3%	31.3%	Brian Kelly		Luis Granja	
Site 3	1.1527	1.0376	0.7788	10.0%	24.9%	Chris Ciccarelli		Chris Ciccarelli	
Site 4	0.1408	0.1314	0.1064	6.7%	19.0%	Robert Fernandez	Richard Hanley	David P. Graham; Rick Nelson	
Site 5	3.1235	2.8388	2.5080	9.1%	11.7%	Tom Oliver	Gina Pero	Richard Schau	
TOP RANKING - CO2 (Weighted Intensity)		Year-over-Year Intensity Improvement Weighted by 2015 Baseline (Intensity Improvement % x Weight %)							
Site	13-14	14-15				Plant Manager	Site EHS	Site WVEC Champion	
Site 1	0.04%	0.57%				Mark Swan	Ben Cuthbertson	Gus Maya; Ben Cuthbertson	
Site 2	0.46%	0.36%				Alan Mdenaghan	Jim Richardson	Jim Richardson; Al Anderson	
Site 3	0.03%	0.10%				Joel Hunt	Agata Sulkiewicz	Agata Sulkiewicz; Steve Dennis	
Site 4	0.04%	0.07%				Mark Heilman	Mary Torello	Mary Torello	
Site 5	0.02%	0.06%				Robert Fernandez	Richard Hanley	David P. Graham; Rick Nelson	

Robust Communications

Ensuring Transparency and Increasing Competition

Plant Managers / Site Sustainability Champs Notified by Official Letter



Dear Chris and Steven,

Congratulations and well done! Your site has been identified as a finalist for a **2016 Saint-Gobain North America Sustainability Award** for achievement in Energy Efficiency. You are among 5 finalists to be nominated for this award based on consistency of improvement over a minimum of two years, and total improvement from 2014 to 2015. For your reference, please see the attached document listing calculations and other finalists in all Sustainability categories throughout Saint-Gobain North America.

As part of a comprehensive qualitative and quantitative analysis by a committee of Delegation personnel, in addition to the aforementioned performance data of your plant, the Sustainability Award Champion will be based on the responses to the questions below. The award will be presented at the 2016 SGNA Sustainability Conference in Faribault, MN on September 15th, 2016. You will be notified before the event of the outcome of the committee's decision.

It is thanks to sites like yours that our company is leading the charge in Energy efficiency and we thank you for your outstanding results. We are looking forward to seeing you at the conference!

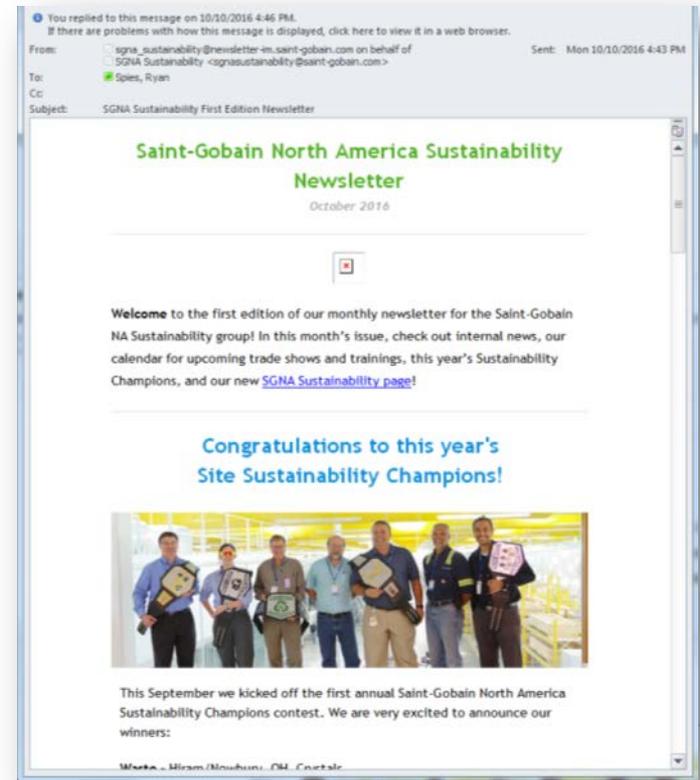
Ryan Spies
SGNA Sustainability

Please submit the following Questionnaire Responses on or before August 1st, 2016 to be eligible for the Saint-Gobain North America Sustainability Award

Use the following guidelines to describe your program and how you achieved your results. The committee will be considering each application based on the responses to the following categories:

- ✔ **Results** – How did you achieve your results? Please provide a simple summary of actions and description of your program over the 2015 calendar year. Include any internal or external awards or articles regarding the accomplishment. (200 Words max)
- ✔ **Program Management** – How is your program managed? Is there a continual management program (e.g. ISO 14001, 5001 or EMS) in place that demonstrates teamwork and upper management support of this specific program? How does your plant and program fit into your larger business unit's goals and objectives? (300 words max)
- ✔ **Innovation/Creativity** – What innovative, creative and/or ambitious solutions in water/waste/energy/CO2 efficiency did your plant pursue to make your program unique? Can the improvement be reproduced by other facilities or businesses? Innovative approaches could be innovation in program structure, reporting, technology, goal setting etc. (200 Words max)
- ✔ **Strategy** – How do the results of this efficiency gain impact the business? (e.g. Cost savings, growth strategy, regulatory commitment, local resource constraints). Describe how the project went beyond objectives fixed by regulatory or business requirements. (100 words max)

Peers Notified via Newsletter Stirring Competition for 2017



Not Just a Project – But a Program that Wins



A single project that improves a metric is not enough to be considered a “champion”.

Saint-Gobain has long term goals, and only programs that are sustainable will achieve those goals.

These awards specifically look at a data set over a long period of time – and reward sites/BU’s that are committed to improving over the long term.

How we Judge

These 4 Categories are critical to determining the Champions

Results

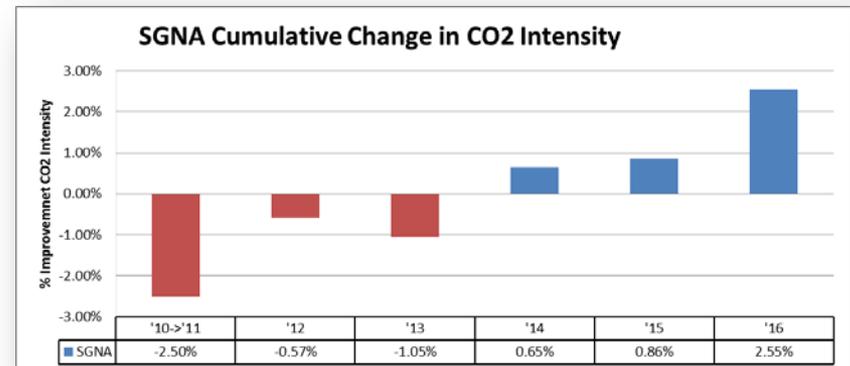
Program
Management

Strategy

Innovation &
Creativity

How is this Innovative?

- **Creativity** – The Championship Belt is something to showoff. Something to be proud off.
 - In North America – WWE stand for World Wide Entertainment – A fake Wrestling League dating back to the 1980's.
- **Insight** – To inspire achievement, we must “speak the language” of the customer... in this case, our customers are Plant Personnel.
- **Differentiation** – These awards are based on years of data and sustained programs – and whole limited to North America.



Awards Should INSPIRE... they should be FUN.



Our Communities Should also Recognize this Achievement

FARIBAULT.com | Faribault Daily News

Home News Sports Opinion Obituaries Community Business Classifieds E-Editions Submission Forms

Business

Home / Faribault Daily News / Business



SageGlass earns 'Energy Champion' honor, besting 150 other Saint-Gobain plants

+3 By GUNNAR OLSON golson@faribault.com Updated Dec 10, 2016 (0)

SageGlass beat out 150 other Saint-Gobain locations to become the 2016 Saint-Gobain "Energy Champion" for 2016, thanks to its commitment to energy efficiency.



glass[®]
Your online industry resource

Live Onsite &
Webcast Auction

ORION

Commercial Retail Auto Fabrication

eSourceBook Jobs S

Saint-Gobain Recognizes Sites for Leadership in Conservation with Sustainability Awards

Glass Magazine
December 2, 2016

COMMERCIAL, RETAIL, FABRICATION

Saint-Gobain announced the winners of its sustainability awards program, which recognizes company locations across North America for their sustainability efforts. The winning sites were recognized at a companywide sustainability conference this fall.

"Saint-Gobain's commitment to sustainability compels us to consider the environmental impact of our business at every stage, from product design to product disposal at the end of life," says John Crowe, president and CEO of Saint-Gobain and CertainTeed Corps. "As a company, we realize it is the aggregate of efforts made by our approximately 14,000 employees that will allow us to reach our ambitious targets for waste, water, energy and carbon dioxide (CO2) reduction, and we believe recognizing sites for their world-class programs will advance achievement across our portfolio."

The program, referred to as the Waste, Water and Energy Program was established in 2016 by the Saint-Gobain Environmental, Health and Safety Department. The program is designed to highlight practical and effective solutions for increasing the sustainability of sites.

The Saint-Gobain Environmental, Health and Safety Department recognized the following champions in 2016:



Running out of patience

Ken Cosentino was clearly frustrated. You could hear it in just about every word of the letter he read out loud on Friday.

In a room full of primarily public employees and individuals who would tend to be sympathetic to the cause of Gov. Andrew Cuomo's administration, Cosentino spoke up for the regular guy living in Niagara Falls residents like him who are still dealing with a whole lot of issues while being told things are getting better, little by little.



During a special presentation of Cuomo's 2017 budget plan at city hall on Friday, Cosentino told the governor's representative, former state Assemblyman Sam Hoyt, that he's not happy with the direction of things. He said he's tired of crumbling neighborhoods, the "subpar" quality of life, lack of opportunities and failure to address big problems like heroin addiction.

Cosentino saved some of his more pointed criticism for the people who run state parks, asking why they are doing so much construction in what should be an all-natural Niagara Falls State Park, putting up fences that prevent people from fully accessing the mighty cataracts in the process.

"Jobs with livable wages are still few and far between, meanwhile the state park flourishes during the tourism season with millions of visitors spending countless dollars," he said.

Hoyt, the regional president of the state's economic development department in Western New York, listened quietly as Cosentino finished his letter.

He then did what guys who have been in the business of politics and government as long as him get appointed to do.

See **SCHEER**, Page 5A

WHERE TO TURN

WWE belt for Saint-Gobain



General production operator Albert McKinney, Production Manager Ross Karipalis and Plant Manager Tim Vitorino pose with their "WWE" belt awarded for their efforts in reducing water consumption at the plant.

Falls plant owned by French corporation wins top energy prize in North America



Albert McKinney, Saint-Gobain's Ekonel production operator, shows off the special polyester resin with a high melting point.

BY MICHELE DELUCA
michele.deluca@niagara-gazette.com

A flashy WWE belt awarded recently to the Saint-Gobain plant on Walmore Road was not the prize from any wrestling match.

But it was a win in just the same and it made quite an impact at the plant on Walmore Road -- as well as on the local environment. The French-owned building materials company, which has manufacturing facilities in 66 countries around the globe, gave the prize in a competition among its North American

divisions to the plants which have done the most to reduce their environmental impact.

There were three belt awards at the conference, one for the reduction of waste, one for the reduction of water and one for the reduction of energy usage -- thus the name WWE for the belts. The local plant won the belt for water reduction usage, but they are going to have to fight if they want to keep the prize.

"The way the program is designed is you have to defend the belt," said site

See **ENERGY**, Page 5A

Falls plans remain vague

DEVELOPMENT: State official declines to get into specifics during visit.

BY PHILIP GAMBINO

philip.gambino@niagara-gazette.com

A visit from Sam Hoyt, the regional president of Empire State Development Corp., failed to shed any new light on the state's plan to target vacant or "underutilized" downtown real estate.



Sam Hoyt

In what state officials called a series of regional budget "briefings" that took place in cities and state colleges across New York, Hoyt spoke Friday and took questions from some members of

See **PLANS**, Page 5A

Meadow upgrade on the horizon

NORTH TONAWANDA:

Council looking at aligning Meadow Drive and 19th Avenue.

BY MIA SUMMERSON

miasummerston@niagara-gazette.com

NORTH TONAWANDA -- Work on a series of improvements for the Meadow Drive area could come as early as next year.

Over the last several years, a number of enhancements have been made to the road, including the completion of the Meadow Drive Extension in 2014, which connected the street to Erie Avenue, and the installation of a new traffic light system and intersection improvements at Meadow Drive and Nash Road the

See **UPGRADE**, Page 5A

Working with Communications Helped Spread the Word

Total Circulation of All Media: Over 430,000 Readers





Thank You



Thank You

Provide feedback on this session in the new Summit App!

Download the app to your mobile device or go to bbsummit.pathable.com

